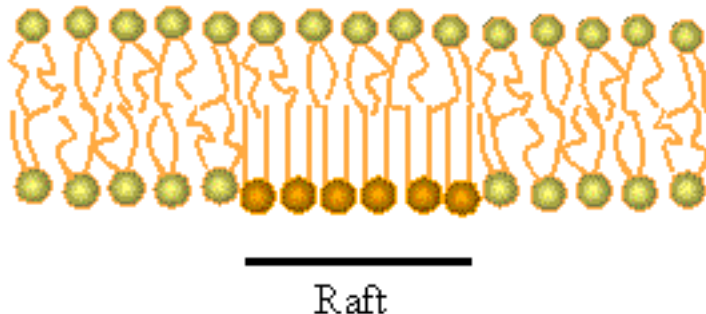


New - Lipid rafts and caveolae

- **Lipid rafts** - Lipid rafts are specialised membrane domains enriched in certain lipids cholesterol and proteins.
 - three types of lipid rafts; caveolae, glycosphingolipid enriched membranes (GEM), and polyphospho inositol rich rafts.
 - The main role of rafts is in signal transduction where the rafts act as an anchor for signaling proteins to assemble into "scaffolds" and the raft also acts as a binding site for actin related proteins.
- **Caveolae** - Caveolae are flask shaped invaginations on the cell surface that are a type of membrane raft, these are cave shaped and associated with proteins called caveolin. Involved in receptor internalization and cell signaling



The fatty-acid chains of lipids within the rafts tend to be extended and so more tightly packed, creating domains with higher order. It is therefore thought that rafts exist in a separate ordered phase that floats in a sea of poorly ordered lipids. Glycosphingolipids, and other lipids with long, straight acyl chains are preferentially incorporated into the rafts.